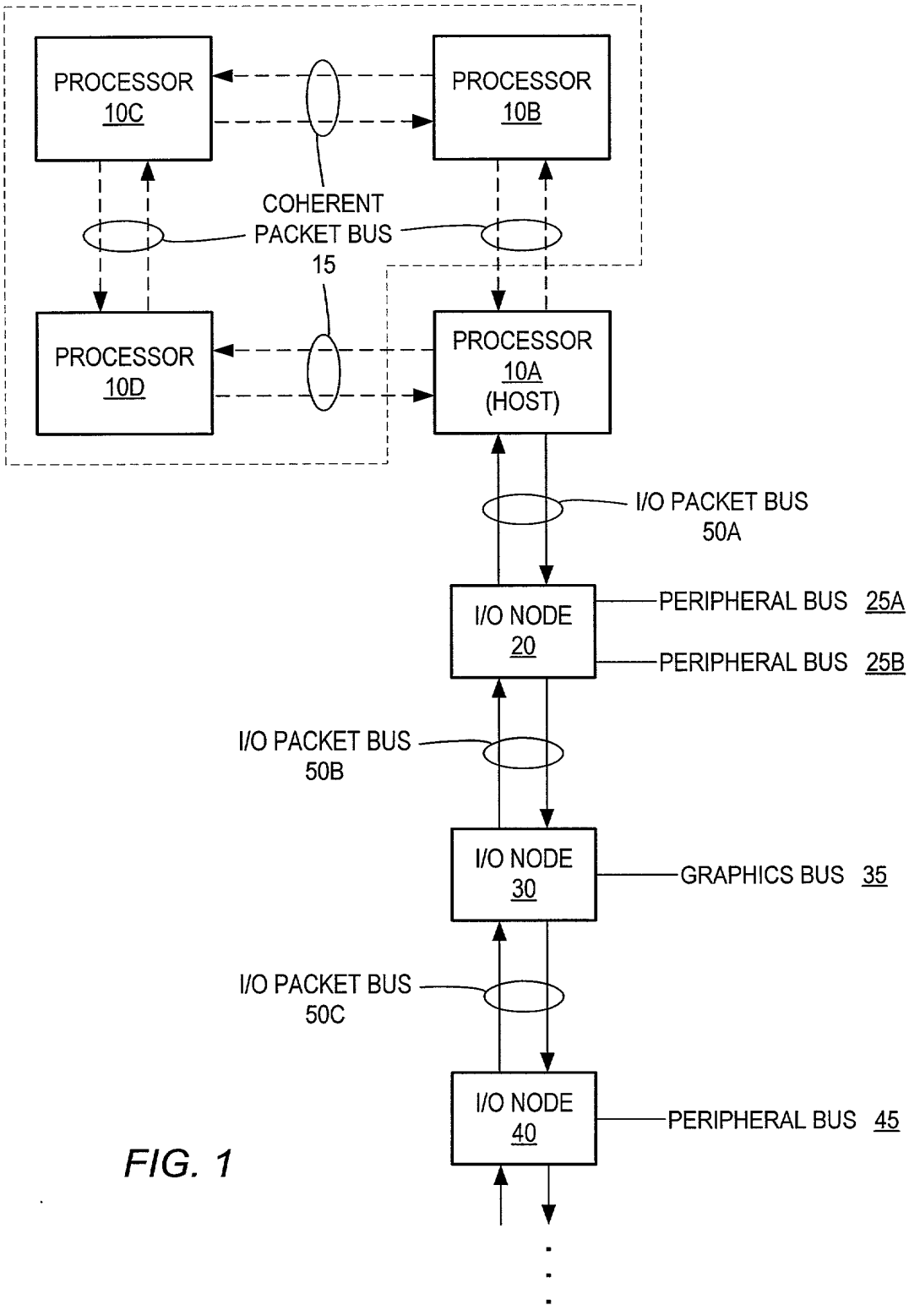
PROCESSOR
10C
PROCESSOR
10B
COHERENT
PACKET BUS
15
PROCESSOR
10D
PROCESSOR
10A
(HOST)
I/O PACKET BUS
50A
I/O NODE
20
PERIPHERAL BUS 25A
PERIPHERAL BUS 25B
I/O PACKET BUS
50B
I/O NODE
30
GRAPHICS BUS 35
I/O PACKET BUS
50C
I/O NODE
40
PERIPHERAL BUS 45

FIG. 1

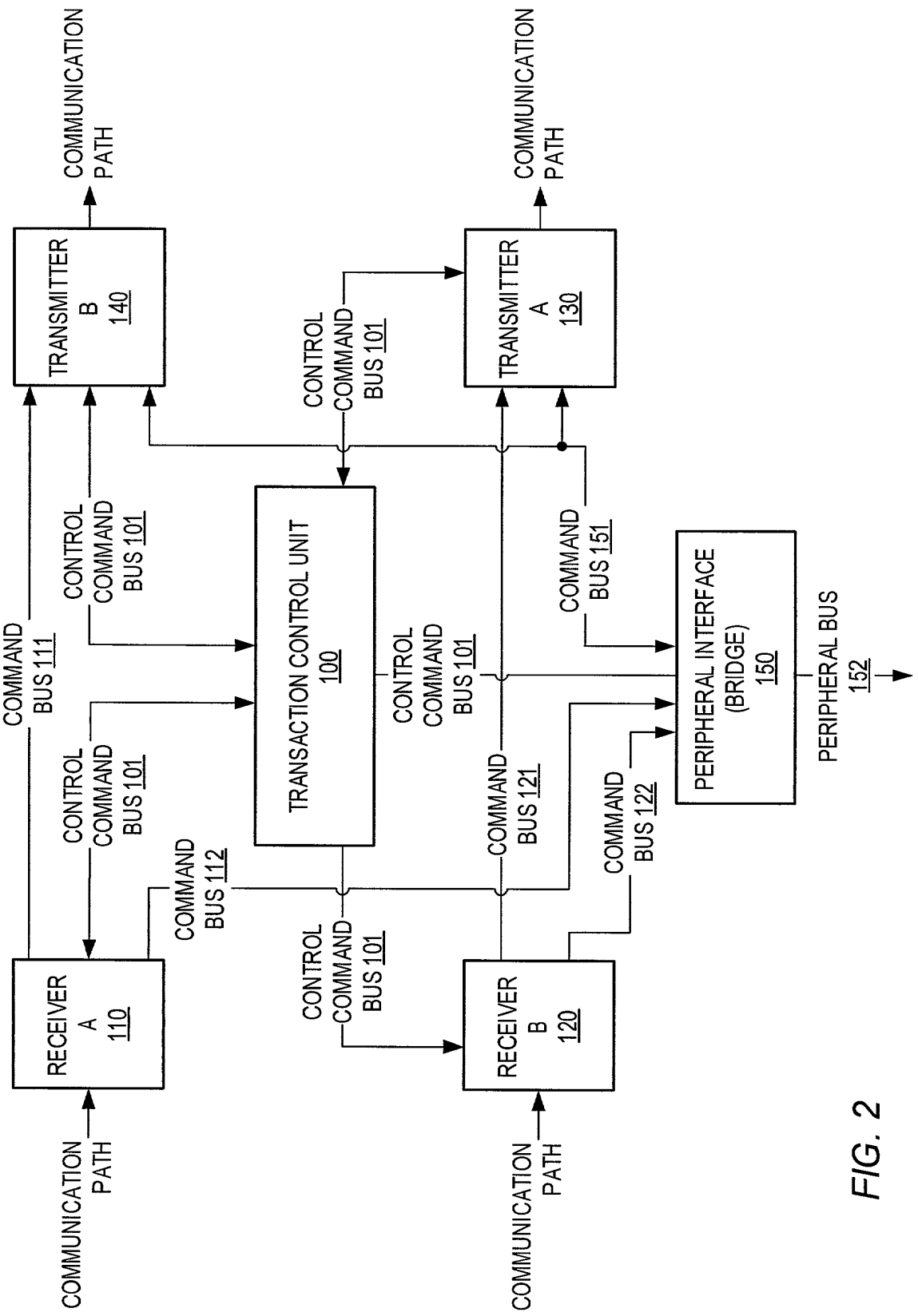
COMMUNICATION PATH
RECEIVER A 110
COMMUNICATION PATH
RECEIVER B 120
TRANSMITTER B 140
COMMUNICATION PATH
TRANSMITTER A 130
TRANSACTION CONTROL UNIT 100
PERIPHERAL INTERFACE (BRIDGE) 150
PERIPHERAL BUS 152
COMMAND BUS 111
CONTROL COMMAND BUS 101
CONTROL COMMAND BUS 101
CONTROL COMMAND BUS 101
CONTROL COMMAND BUS 101
CONTROL COMMAND BUS 101
COMMAND BUS 112
COMMAND BUS 121
COMMAND BUS 122
COMMAND BUS 151

FIG. 2

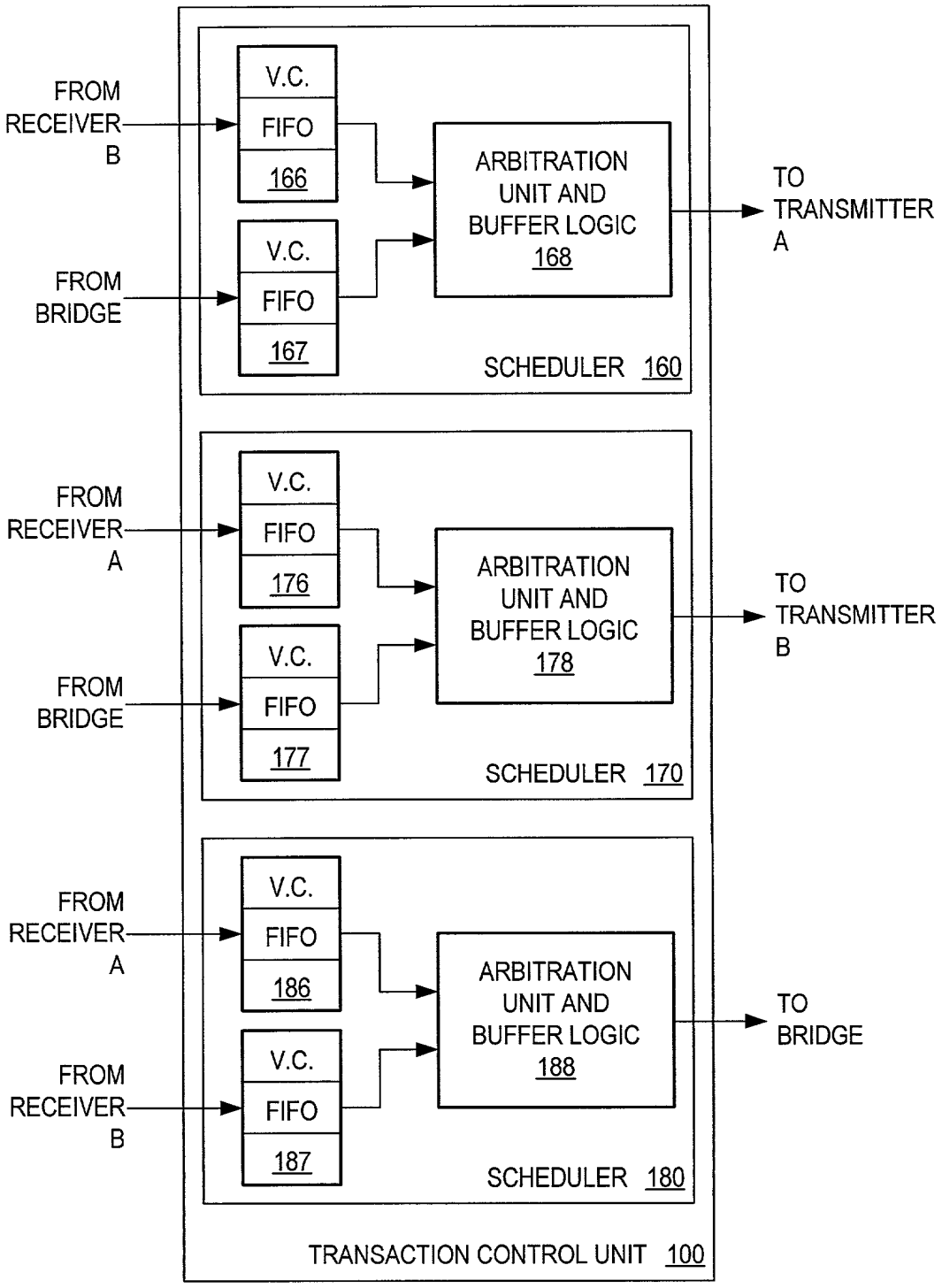
FROM RECEIVER B
V.C.
FIFO
166
FROM BRIDGE
V.C.
FIFO
167
ARBITRATION UNIT AND BUFFER LOGIC 168
TO TRANSMITTER A
SCHEDULER 160
FROM RECEIVER A
V.C.
FIFO
176
FROM BRIDGE
V.C.
FIFO
177
ARBITRATION UNIT AND BUFFER LOGIC 178
TO TRANSMITTER B
SCHEDULER 170
FROM RECEIVER A
V.C.
FIFO
186
FROM RECEIVER B
V.C.
FIFO
187
ARBITRATION UNIT AND BUFFER LOGIC 188
TO BRIDGE
SCHEDULER 180
TRANSACTION CONTROL UNIT 100

FIG. 3

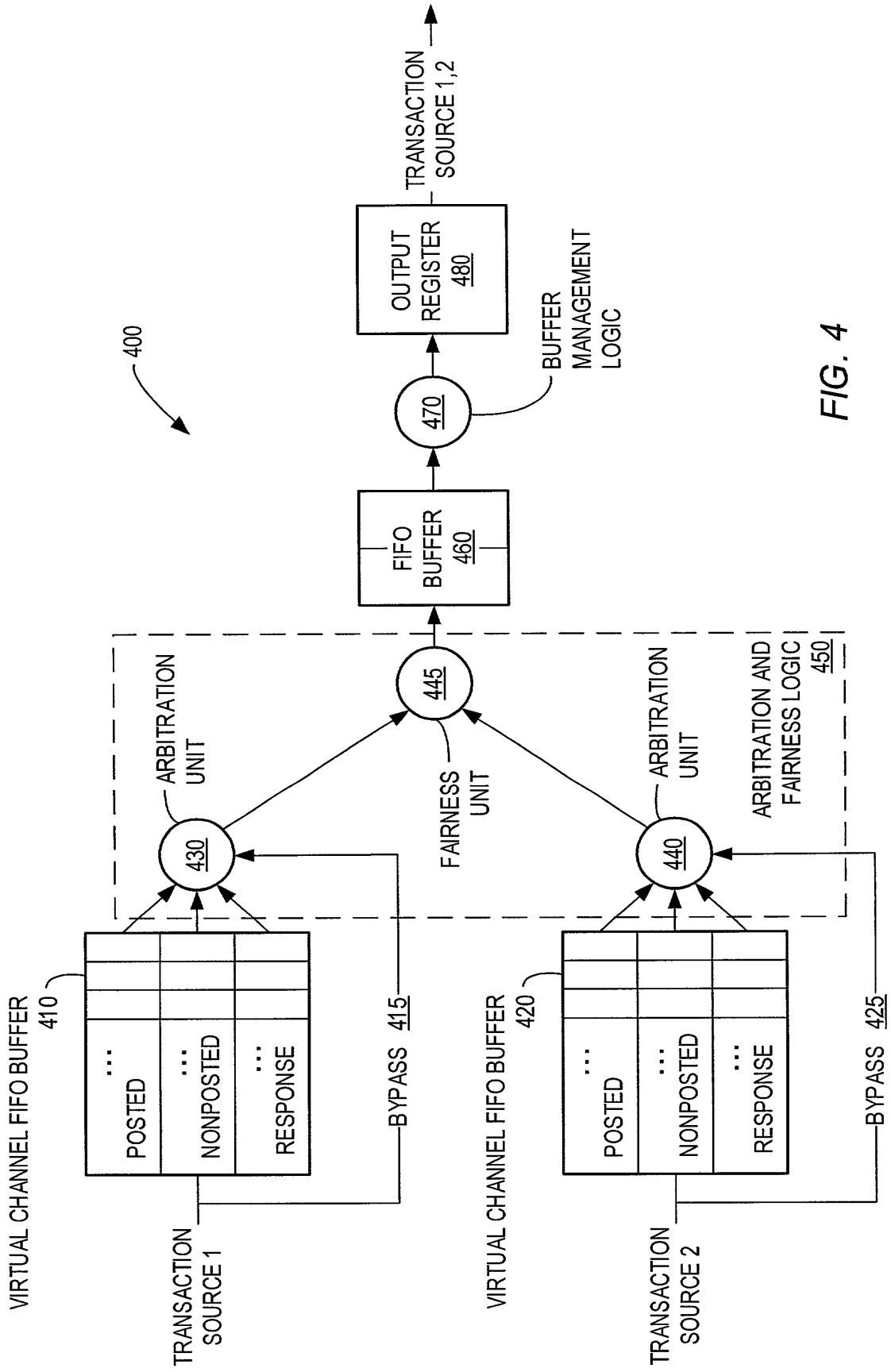
400
VIRTUAL CHANNEL FIFO BUFFER 410
POSTED
NONPOSTED
RESPONSE
TRANSACTION SOURCE 1
BYPASS 415
ARBITRATION UNIT 430
FAIRNESS UNIT 445
ARBITRATION UNIT 440
ARBITRATION AND FAIRNESS LOGIC 450
VIRTUAL CHANNEL FIFO BUFFER 420
POSTED
NONPOSTED
RESPONSE
TRANSACTION SOURCE 2
BYPASS 425
FIFO BUFFER 460
470
BUFFER MANAGEMENT LOGIC
OUTPUT REGISTER 480
TRANSACTION SOURCE 1,2

FIG. 4

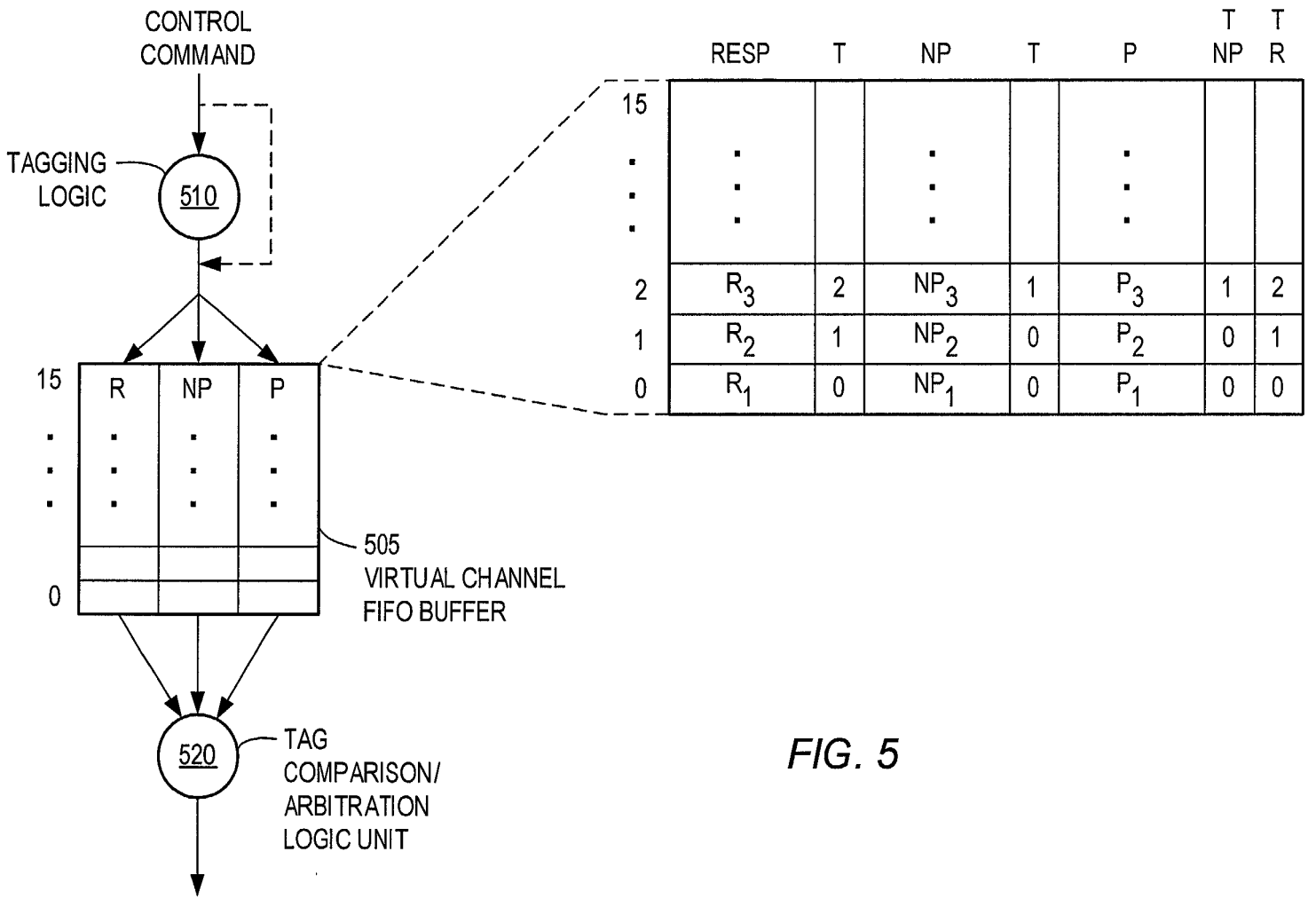
CONTROL
COMMAND
TAGGING
LOGIC
510
15
0
R
NP
P
505
VIRTUAL CHANNEL
FIFO BUFFER
520
TAG
COMPARISON/
ARBITRATION
LOGIC UNIT
RESP
T
NP
T
P
T
NP
T
R
15
2
1
0
R3
2
NP3
1
P3
1
2
R2
1
NP2
0
P2
0
1
R1
0
NP1
0
P1
0
0

FIG. 5

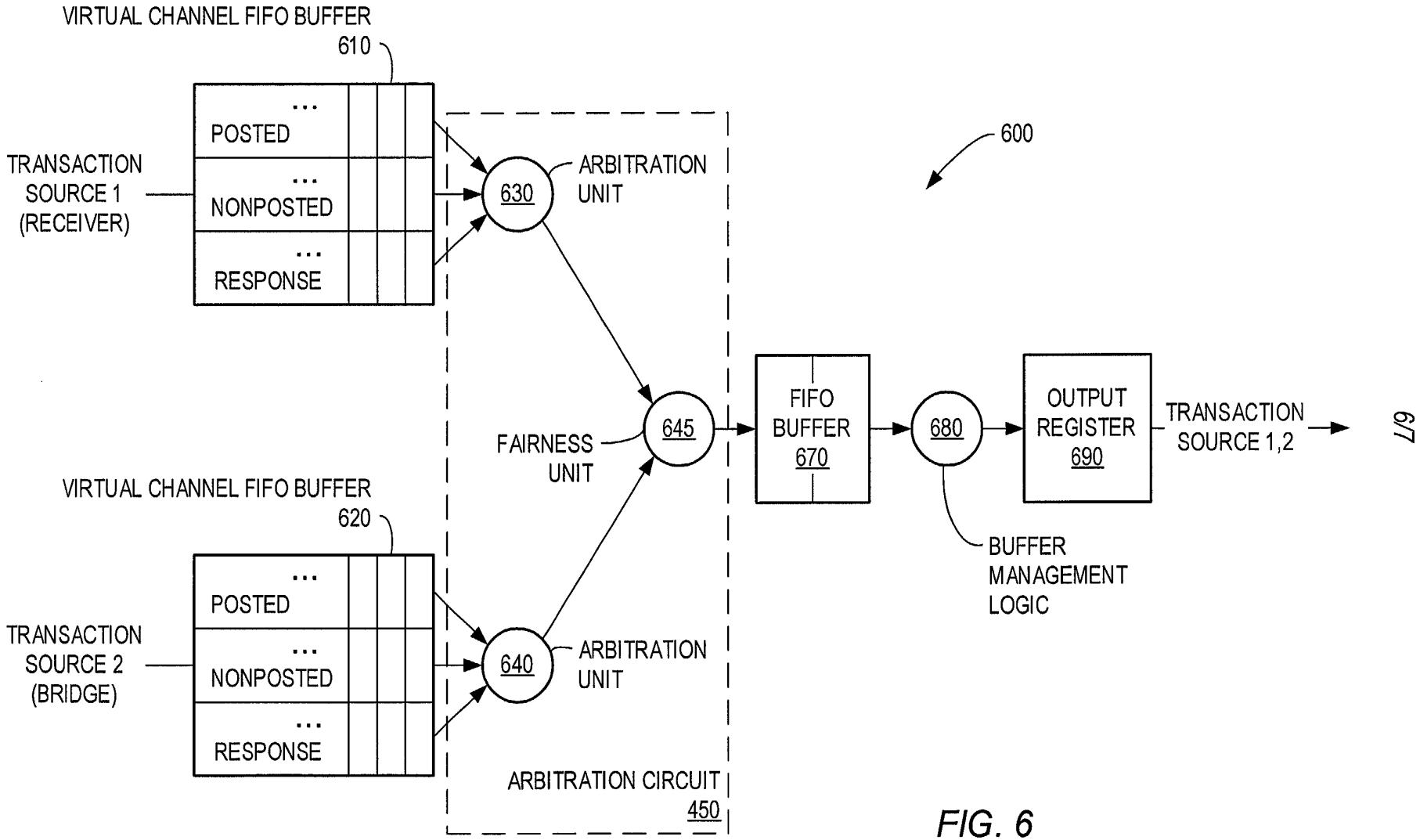

FIG. 6

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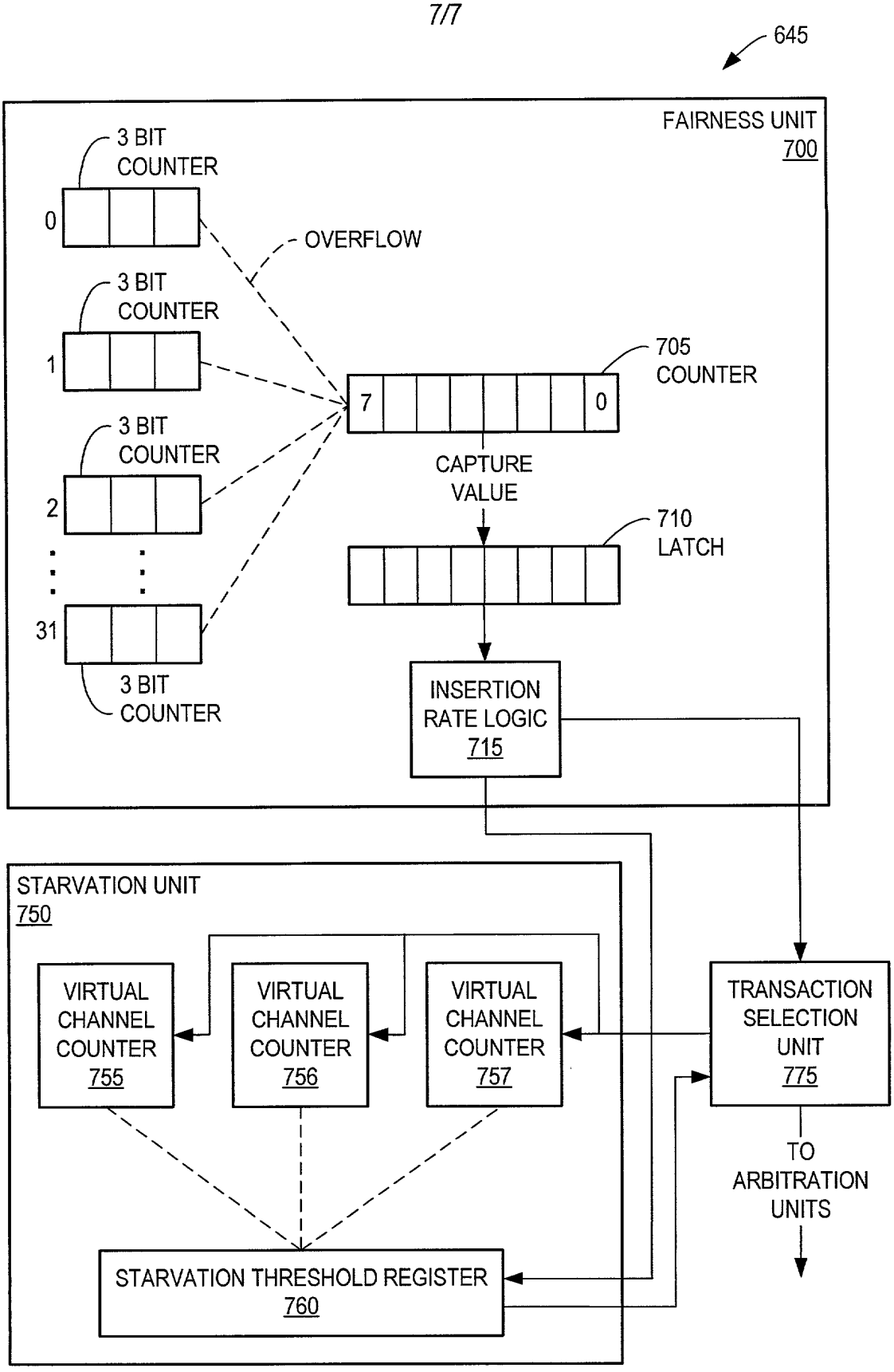
645
FAIRNESS UNIT
700
3 BIT
COUNTER
0
OVERFLOW
3 BIT
COUNTER
1
3 BIT
COUNTER
2
3 BIT
COUNTER
31
705
COUNTER
7
0
CAPTURE
VALUE
710
LATCH
INSERTION
RATE LOGIC
715
STARVATION UNIT
750
VIRTUAL
CHANNEL
COUNTER
755
VIRTUAL
CHANNEL
COUNTER
756
VIRTUAL
CHANNEL
COUNTER
757
TRANSACTION
SELECTION
UNIT
775
TO
ARBITRATION
UNITS
STARVATION THRESHOLD REGISTER
760

FIG. 7